RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 2600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor :	Eikfun Khor et al.	
Appln. No.:	10/685,150	Group Art Unit: 2627
Filed :	October 14, 2003	
For :	USING A MECHANICAL STOP FOR DETERMINING AN OPERATING PARAMETER OF A DATA HANDLING DEVICE	Examiner: Andrew L. Sniezek
Docket No.:	S104.12-0130/STL 11368	

REQUEST FOR PRE-APPEAL REVIEW

I HEREBY CERTIFY THAT THIS PAPER IS BEING SENT BY U.S. MAIL, FIRST CLASS, TO THE COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450, THIS
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P.O. Box 1450
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Sir:

Applicants request a Pre-Appeal Brief Review of the rejections of claims 1-18 and 23 since the rejections are based on clear error of fact and omission of essential elements to establish a prima facie rejection.

I. <u>CLAIM REJECTIONS UNDER §102(e) BASED ON CHAINER et al.</u>

Claims 1, 5, 8-12, 14, 16 and 23 were rejected under §102(e) as being anticipated by Chainer et al., U.S. Patent No. 6,603,627.

A. **Chainer et al. Does Not Disclose A "Common Actuator Position"**

The Office Action inaccurately suggests that in Chainer et al., "[t]he common actuator position is when the head is pushed against the crash stop," and that "[a]lthough the head might be moved by small amounts during these operations [of Figures 3-5], the head remains against the crash stop." (Office Action, Page 6). But if the actuator position is

deliberately stepped between different positions, then those different positions cannot be considered a "common actuator position".

Chainer et al. state,

> An initial set of servo pattern tracks is written by moving an actuator against a compliant structure (e.g., crash stop) with a first force applied thereto to hold the actuator in a first position to write a first track of the servo pattern. The force is changed, thereby reaching a second position of the actuator against the compliant structure, at which a second track of the servo pattern is written. The process is iterated for additional tracks. (Abstract) (Emphasis added).
>
> Thus, the [compressible] crashstop can provide controllable movement of the head simply by varying the VCM current." (Col. 3, line 66 to col. 4, line 1);
>
> Then, a series of tracks are written (Step 320) with the VCM dac stepped by a certain amount between tracks." (Col. 4, lines 8-11) (Emphasis added);

Thus, the Chainer et al. document itself expressly contradicts the Examiner's interpretation. In the Chainer et al. procedure, the crashstop provides controlled movement of the head between different positions.

These positions cannot be considered "a common position" within the context of claim 1 and in direct contradiction to the Chainer et al. patent

B. Chainer et al. Do Not Sense Several Lateral Positions While at a Common Actuator Position.

Claim 1 includes the step:

> determining an accessible track range for the surface partly based on several lateral positions sensed while urging the actuator laterally against a stop at a common actuator position.

Chainer et al. do not sense lateral positions, do not sense several lateral positions, and do not sense several lateral positions while at a common actuator position.

The Examiner cites column 5, lines 23-33 and asserts that Chainer et al. use pairs of adjacent tracks in the sensing arrangement therefor several tracks are sensed.

But Chainer et al. do not sense lateral positions. Rather, they measure spacing between two adjacent tracks by measuring an "overlap" signal, "which is equal to the sum of the

normalized readback amplitudes for a pair of tracks when the read element is positioned such that it overlaps both tracks by approximately equal amounts." (Col. 4, lines 20-24).

The overlap signal is an amplitude, not a sensed lateral position as in claim 1. Further, the overlap signal is a combined signal and is between only two tracks. Chainer et al. do not sense several lateral positions.

Further, Chainer et al. do not sense several lateral positions while urging the actuator laterally against a stop at a common actuator position. It is clear from column 5, lines 23-33 and step 540 of FIG. 5 that the actuator position is "servo'ed" to each track edge (i.e., moved a different position) for each track spacing measurement.

Thus, Chainer et al. do not sense several lateral positions while urging the actuator laterally against a stop at a common actuator position, as recited in claim 1.

C. **"Track Range" is Different Than "Track Spacing"**

Chainer et al. discuss "track spacing", not "track range". In col. 4, lines 20-27, Chainer et al. discuss that the "spacing between tracks is checked by measuring the 'overlap' signal (Step 330) which is equal to the sum of the normalized readback amplitudes for a pair of tracks when the read element is positioned such that it overlaps both tracks by approximately equal amounts. This overlap signal decreases with increasing track spacing and therefore provides a measurement of relative track spacing . . .." (Emphasis added).

In claim 1, the phrase, "a track range for the surface" clearly refers to a range of tracks on the surface, not the spacing between a pair of adjacent tracks.

A person of ordinary skill in the art would understand that "track spacing" is much different than "track range."

D. **Claim 10**

Independent claim 10, this claim includes the step of:

> "urging an actuator against a stop while identifying each of several tracks at a common actuator position using a head supported by the actuator."

Again, in Chainer et al., the actuator is moved from one position to the next when writing the series of different tracks. During the overlap measurement, Chainer et al. measure the

sum of the readback amplitudes for two adjacent tracks. The overlap signal is not an identification of each of several tracks.

And, Chainer et al. do not anticipate identifying each of several tracks while the actuator is at a common actuator position - rather the actuator is moved between different positions.

E. **Claim 23**

Claim 23 is also not taught by Chainer et al. for similar reasons as claims 1 and 10. Further, claim 23 states,

> sensing several lateral track identifiers while urging the actuator laterally against a stop at a fixed, common actuator position; and
>
> determining an accessible track range for the surface partly based on the several lateral track identifiers.

In Chainer et al., the actuator positions are stepped, not fixed, and FIG. 5 of Chainer et al. is directed to measuring overlap, not lateral track identifiers.

Chainer et al. provide no teaching of sensing several lateral track identifiers while the actuator is at a fixed, common position.

II. CLAIM REJECTIONS UNDER §102(e) BASED ON TAKAISHI et al.

Claims 1-3, and 5-9 were rejected under §102(e) as being anticipated by Takaishi et al., U.S. Patent No. 6,819,519.

A. **Takaishi et al. Do Not Sense Several lateral Positions at a Common Actuator Position**

Takaishi et al. describe a process for measuring a starting position of each head. Takaishi state,

> "In order to do that, the MCU 8 moves the actuator 5 to the outer side of the disk, and at the point where the actuator will not move any further, the MPU 8 detects the track address that is read by the head." (Col. 5, lines 62-66).
> "In order to position the entire track when eccentricity occurs, it is necessary to detect the track where the maximum value of eccentricity is at the position of the outer stopper." (Col. 6, lines 4-7).

FIG. 7 is a flowchart of the measurement process for doing this, which is described in column 6, lines 10-31. First, the system seeks a track position "StartTarget" that does not come in contact with the stopper. Next, the system decreases the target position SeekTarget by `-1. The system then determines whether the head can move. For example, it determines whether the track number read by the head changes from seeking. This process repeats until the head cannot move any further. That target position is taken to be the maximum outer position for that sector position, and it is stored in a table.

Takaishi et al. do not urge the actuator laterally against a stop at a common actuator position and sense several lateral positions while at a common actuator position. Rather, Takaishi et al. incrementally move the head one target position at a time toward the stopper until the head can move no further. That target position is taken as the maximum outer position.

III. CLAIM REJECTIONS UNDER §103

Claim 15 was rejected as being unpatentable over Chainer et al. in view of Takaishi et al., and claim 17 was rejected under §103(a) as being unpatentable over Chainer et al. in view of Lee, U.S. Patent No. 6,715,032.

Concerning claim 15, the proposed modification of Chainer et al. in view of Takaishi et al. is flawed since Chainer et al. emphasizes self-servowriting. (Col. 1, lines 8-15).

Claim 17 is discussed on page 8 of Applicant's prior response dated November 23, 2005 and on page 11 of Applicants response dated June 21, 2006.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,
WESTMAN, CHAMPLIN & KELLY, P.A.

By: ______________________

David D. Brush, Reg. No. 34,557
Suite 1400 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

DDB:tkj